

From: Benjamin.Shorr@noaa.gov
To: Eric.Blischke/R10/USEPA/US@EPA
Cc: Robert.Neely@noaa.gov; Jay.Field@noaa.gov; Dana.Davoli/R10/USEPA/US@EPA; rgensemer@parametrix.com; jkoloszar@parametrix.com; mspence@parametrix.com; csmith@parametrix.com
Subject: Re: A few modifications to the table
Date: 01/10/2007 07:37 AM

Eric-

A few notes on the surface sediment screening numbers for ecological risk:

I strongly recommend that the units that are in this spreadsheet be changed to reflect the units in Query Manager. There should be a column with the units for each analyte (most metals in PPM, vols/svols etc PPB), and the guidelines should be adjusted to that for consistency.

Total PCB's TEC should probably be .0598 (off by 10^3)

Dieldrin (PPB) numbers are TEC/PEC = 1.9/61.8; spreadsheet has 2.85/6.7

2378 TCDD- there is one sample over 9 ng/kg ($9E^{-6}$ mg/kg) at 111 under railroad bridge. Looking directly at TCDD2378 conc. may benefit from a paired number.

Hexachlorocyclohexane differs from QM TEC/PEC which is 2.37/4.99 PPB, spreadsheet has .94/1.38

Hexachlorobutadiene, Tetrachloroethene, Trichloroethene units may be incorrect in spreadsheet (off by 10^3)

Please let me know if there is a call today that I can join- otherwise I'm available for the 1pm call tomorrow.

Thanks,
Ben

----- Original Message -----

From: Blischke.Eric@epamail.epa.gov
Date: Tuesday, January 9, 2007 3:05 pm
Subject: Re: A few modifications to the table

> Dana, here is a response to your questions and modifications to the
> table. I am copying the data evaluation folks and attaching your
> modifications to the table. I also have a few questions for Ben
> regarding how QM handles certain summed values.
>
> I do not want to look at aluminum. 7600 mg/kg while screening in
> at a
> HQ of 0.1 is probably below background - upstream aluminum
> concentrations range from 12,000 - 33,000 mg/kg. Further, the direct
> contact exposure scenarios are very conservative (350 days a year
> for a
> beach?).
>
> Regarding the TEQs and DDT, DDE and DDD sums - by manually, I meant
> that it was not being calculated automatically by Query Manager. We
> should be able to do this in excel. I certainly support looking at
> the TEQs
> but I want to get started on some easier evaluations first. We may
> have to prioritize things here.
>
> Ben: What is included in the reported TEQ value - dioxin TEQs or
> dioxin and dioxin-like PCB TEQ?
>
> I don't really know how to best evaluate the PAHs. Regarding
> naphthalene and Benzo(a)pyrene, we can look at these as individual
> chemicals. Hopefully, if we look at total PAHs, total low molecular
> weight PAHs and BAP and naphthalene, we will get a sense of the PAH
> distribution to help us focus our evaluation. Another thing we might
> want to do is query the carcinogenic PAHs and look at total
> carcinogenic PAHs screened against BAP screening numbers.
>
> Ben: Do you know high molecular weight and low molecular weight PAHs
> are calculated.
>
> Regarding the modified table. I am ok with screening non-
> carcinogens at
> 0.1 (with the exception of Aluminum). Because QM is good at
> looking at
> concentration ranges, we should look at both HQ = 1 and HQ = 0.1.
>
> I noticed the error regarding the residential soil PRG for BAP (units
> problem). You have correctly modified the screening number to be
> 0.062mg/kg.
>
> Lets figure out the best way to too look at total PCBs (total aroclors
> or total congeners). For surface water, we should look at total
> congeners due to interferences associated with the aroclor results.
> For
> sediment, we should look at both total congeners and total aroclors.
> The total congeners represents a better number. However, we have much
> less congener data than aroclor data. (PMX and Ben, I am
> attaching a
> write up on summing).
>
> Regarding TBT in Fish, our TBT data is limited to clams, and juvenile
> Chinook. Only one sample (a clam sample from the shipyard) exceeds

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> thefish screening value (detected concentration = 530 ug/kg; fish
> screeningnumber = 144 ug/kg; shellfish screening number = 1170
> ug/kg). We can
> still look at TBT in surface water.
>
> Eric
>
> (See attached file: 20070108Davoli Modif to ERIC
> RiskParameters.xls)(Seeattached file: 20060201 Kissinger Approach
> Portland Harbor Upstream Fish
> Tissue Sample Total PCBs, PCB TEQs, Dioxin_Furan TEQs.doc)
>
>
> danadavoli
> <danadavoli@avva
> nta.com>
>
> To Eric
> Blischke/R10/USEPA/US@EPA
> 01/08/2007 09:44
> cc Dana Davoli/R10/USEPA/US@EPA
> PM
>
> Subject A few modifications to the
> table
>
>
>
> I just checked the HH table. Changes are in yellow.
>
> The major changes are HQ=1.0 to HQ=0.1 for the direct contact. I added
> AL back in for the beaches because it screens in at HQ = 0.1. I don't
> have the LWG website so I couldn't check if AL screens in for the
> in-water sediments.
>
> I think we only have Aroclors for the beaches, not congeners. I
> startedto add all of the TEQs that I would like to see (d/f, PCB,
> and the sum
> of these) to the lists but decided to wait until we talk. I don't
> thinkit would be that hard for Parametrix to do the calculations in
> EXCEL or
> ACCESS and import them into the NOAA database. Same for total PCBs
> fromcongeners and the DDEs, DDDs, and DDT's.None of this should be done
> manually.
>
> For PAH, I do not know how the NOAA database defines hi MW versus
> low MW
> PAHs so I can't tell how close the hi MW would be to the carcinogenic
> PAHs (B(a)P equivalents.)
>
> Wasn't sure what you meant by using naphthalene and B(a)P as
> surrogates.For example, do you mean using he naphthalene tox values
> as surrogates
> for total low MW PAHs?
>
> I wasn't sure if TBT is above the SLV in fish. We can use the CRITFC
> Report value of 500 ug/mg as an SLV for all biota for lead but I don't
> know if we exceed this. For Hg in water, let's ues the ODEQ TMDL
> value.Ican look it up tomorrow.
>
> I am in Health and Safety training on Tuesday but will try to call you
> at the morning break to discuss the table.
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